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| EXAMINER |
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AMINI, JAVID A

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| ART UNIT | PAPER NUMBER |
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2672

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/917,910

Applicant(s)

NAH ET AL.

Examiner

Javid A. Amini

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/2005 has been entered.

Examiner's suggestions: Applicant should be providing more details information about the type of images (2D or 3D or both); limitations of min and max size of the panel display, e.g. if a person skill in the art has a display size of 1 by 1 inch, how can he display the real size of an apple with at least 2 inches diameter? Or he does not display the real size image, instead displays just the information data e.g. distance, color, length, width and etc., for the object; the process of image converter is not well defined; Is the first image considered as an object?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Nishioka and further in view of Jones et al. hereinafter refers as Jones.

1. Claim 1.

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Nishioka determines the real size of an object during endoscopy. Nishioka in fig. 1 illustrates a real size display (i.e. the monitor 26), see following claim languages: "A real size display system, comprising". Nishioka in fig. 1 illustrates a rectangular shape panel that can be flexible or rigid, and can utilize an optical fiber or a charged coupled device (CCD) camera, see col. 8, lines 16-24. Nishioka is silence about the terms that Applicant uses in the claim as "a plurality of dots for displaying image information and providing information on a size of the dots", it would have been obvious to an ordinary person in the art to recognize the actual measurement of the object must be incorporated with a plurality of pixels or dots on the screen. However Jones as a second reference at paragraph 0091 teaches a voxel, i.e. a voxel is a volume element, representing a colour value in three dimensional space, i.e. analogous to a pixel, which represents 2D image data. Both references cover at least 2-dimensional image, and Applicant does not specify the type of image in the claim invention. The claim invention claims "an image converter that receives first image information, converts the first image information into second image information and outputs the second information to the flat panel display unit", Nishioka in fig. 1 illustrates a panel with a screen area, which can be connected to a camera *id.*, the camera's image considered as the first image that Applicant claims, and in fig. 2a, the electronic measurement grid can be a computer-generated scale visually overlaid on image (i.e. similar to claim's language of the second image) indicating a grid spacing on the image corresponding to an actual size for the object, e.g., 10 mm. See following steps: "wherein the first image information includes measurement information on an actual size of an object described by the first image information". Nishioka in fig. 2A illustrates that the first image converted into the second image already. Applicant does not specify the type of data conversion. The following steps "wherein

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the first image information is converted into the second image information based on the dot size information received from the flat panel display unit” don not provide limitations of min and max size of the panel display, e.g. if a person skill in the art has a display size of 1 by 1 inch, how can he display the real size of an apple with at least 2 inches diameter? Or he does not display the real size image, instead displays just the information data e.g. distance, color, length, width and etc., for the real size image. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Jones into Nishioka in order to enable to have information based on the dot size of the panel display.

2. Claim 2.

“The real size display system according to claim 1, wherein the first image information includes magnification, horizontal synchronization signal, vertical synchronization signal, clock and measured distance data”, The following arrangements are obvious, because image information should have magnification, horizontal synchronization signal, vertical synchronization signal, clock and measured distance data. Applicant should be more explicit about mentioned information rather than using general terms.

3. Claim 3.

“The real size display system according to claim 1, wherein the flat panel display system includes a controller that enables magnification adjustment of the second image information, thereby enabling real size display as desired by a user”, Nishioka in col. 8, lines 36-49 teaches the adjustment of magnification of the image.

4. Claim 4.

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“The real size display system according to claim 1, wherein the image converter extracts an R component, G component, and B component from the first image information, then converts the extracted R, G, B image signals based on the dot size information provided from the display unit, and outputs the second image information to the flat panel display unit”, Applicant should be more explicit about R component, G component, and B component, because it is well known to a person skilled in the art that the opacity is the amount of light passes thru an object pixel. And the brightness/intensity/luminance is defined as quantity of light. The light is combination of R component, G component, and B component. Nishioka in table 4 discloses the actual size is expressed as differences between band colors (i.e. green, red, yellow, blue, red-white).

5. Claim 5.

See rejection of claim 1.

6. Claim 6.

“The real size display system according to claim 5, wherein the first image information includes magnification, horizontal synchronization signal, vertical synchronization signal, clock and measured distance data”, see rejection of claim 2.

7. Claim 7.

“The real size display system according to claim 5, wherein the flat panel display system includes a controller that enables magnification adjustment of the second image information, thereby enabling real size display as desired by the user”, See rejection of claim 3.

8. Claim 8.

“The real size display system according to claim 5, wherein the image converter extracts an R component, G component, and B component from the first image information, then converts the

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extracted R, G, B image signals based on the dot size information provided from the display unit, and outputs the second image information to the flat panel display unit”, see rejection of claim 4.

9. Claim 9.

“The real size display system according to claim 1, wherein a real size of a subject of the first image information and the second image information is measured to generate the measurement information”. See rejection of claim 1.

10. Claim 10.

“wherein the flat panel display unit uses the second image information to display an image of the subject and a size of the displayed subject is the real size of the subject. see rejection of claim 1.

11. Claim 11.

“The real size display system is according to claim 5, wherein a distance between the subject and the image of the subject is measured to generate the measurement information”. See rejection of claim 1.

12. Claim 12.

“The real size display system according to claim 10, wherein the flat panel display unit uses the second image information to display a second image of the subject and a size of the displayed subject is the real size of the subject”. See rejection of claim 1.

13. Claims 13-14.

“wherein the flat panel display unit comprises at least one of a button, a switch, a touch-operated icon on a screen of the flat panel display for enabling real-size display operation”. Jones in fig. 36 steps 762, 764, 776 and 784 illustrates these switches (i.e. software), and Jones at paragraph

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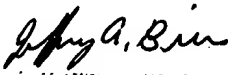
0092 teaches selecting an option by a user using an input device such as a mouse (i.e. similar to a touch-operated icon on a screen).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JEFFERY B. BIRN
PRIMARY EXAMINER

Javid A Amini
Examiner
Art Unit 2672

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